

Atty Docket: IDF 1660 (4000-04700)**Patent****REMARKS/ARGUMENTS*****Status of claims***

Claims 1-20 are currently pending in this application. Claims 21-28 have been canceled in response to the restriction requirement.

Applicants hereby request further examination and reconsideration of the presently claimed application.

35 USC § 102 and § 103 Rejections

Claims 1-3 and 5-20 stand rejected under 35 USC § 102 (e) as anticipated by *Florschuetz* (6,601,009). Claim 4 stands rejected under 35 USC § 103 (a) as obvious over *Florschuetz* (6,601,009). As can be seen, each of these rejections relies upon the cited reference, *Florschuetz*.

Applicants provide herewith the Declaration Under Rule 1.131 of inventor Kevin H. Hansen establishing that the invention claimed in the present application was actually reduced to practice prior to July 12, 2001, which is the effective date of *Florschuetz*. Therefore, *Florschuetz* is no longer available as a prior art reference, and Applicants respectfully submit that claims 1-20 are now allowable.

*Atty. Docket: IDF 1660 (4000-04700)**Patent***IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**Applicants: Kevin H. Hansen, *et al.*

Serial No.: 09/919,430

Filed: July 31, 2001

For: INTERNET SERVICE NODE INCORPORATING
A BANDWIDTH MEASUREMENT DEVICE
AND ASSOCIATED METHODS FOR
EVALUATING DATA TRANSFERS§
§
§
§
§
§
§
§
§

Group Art Unit: 2151

Examiner: John B. Walsh

Confirmation No. 4192

**RECEIVED
CENTRAL FAX CENTER****MAY 05 2005**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**DECLARATION UNDER RULE 1.131**

I, Kevin H. Hansen, declare:

1. I am a co-inventor of the above-identified application.
2. I have been continuously employed by Sprint in various capacities since July 1998.
3. As evidence of the reduction to practice of the invention claimed in this application, attached hereto as Exhibit A is the Invention Disclosure Form.
4. Paragraph 4 of the Invention Disclosure Form indicates that the invention is ready for commercialization, which further indicates that the invention had been successfully tested and was ready for distribution to and use by others within Sprint prior to the time that the Invention Disclosure Form was created.
5. As further evidence of actual reduction to practice of the invention claimed in this application, attached hereto as Exhibit B is the Operational Ready Statement.
6. As noted in the first paragraph of the Operational Ready Statement, "[t]he purpose of this document is to convey operational readiness for the Bandwidth Measurement Tool (BMT)

Atty. Docket: IDF 1660 (4000-04700)

Patent

that will be deployed into ION and to present an overview of the architecture" (emphasis added).

A finding of "operational readiness" means that the invention had been successfully tested.

7. The Operational Ready Statement accurately reflects and describes the content thereof, which is the subject matter of the present invention.

8. Having refreshed my recollection by reviewing Exhibits A and B and based upon my further independent recollection, the invention claimed in this application was actually reduced to practice via successful testing prior to creation of the Invention Disclosure Form of Exhibit A and the Operational Ready Statement of Exhibit B.

9. All pertinent dates which have been removed from Exhibits A and B are prior to July 12, 2001.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE

Full name of inventor: Kevin H. Hansen

Inventor's signature: Kevin H. Hansen

Date: 5-05-05

Country of Citizenship: U.S.A.

Residence Address: 7985 Monticello, Shawnee, KS 66227

EXHIBIT A

Sprint Law Department Docket No.:

1660

Outside Patent Counsel Docket No.:



DOCKETED

Date:

By: TAN

CONFIDENTIAL

INVENTION DISCLOSURE FORM

This invention disclosure form is being submitted to the Sprint Law Department for the purpose of obtaining an opinion regarding this invention or for the purposes of securing legal services related to this invention. This invention disclosure is confidential and is an attorney-client privileged legal communication.

Attached are instructions that correspond to each of the numbered questions

Date:

1. Title of Invention: Bandwidth Meter

2. Summary of the Invention: Bandwidth Meter, an application that is used to measure and monitor data transfer speeds from the ION service Node to the customer premise. This system isolates Sprint ION Data services from that of the internet.

3. Earliest written description of the invention (by date and location) (attach a copy):

4. Is the invention ready for commercialization? (circle) (Yes) No

If No, describe status of the invention:

5. Either previously or in the future do we plan to disclose or offer the invention to anyone, or to work with other companies in the invention development?

(circle) (Yes) No

If Yes: Date(s) Today

To Whom and for what purpose: This product will be used by our ION customers to test there own data speeds into the ION network.

Is there any agreement that covers the disclosure, offer or work, such as a non-disclosure agreement (NDA), services or development agreement?

If "Yes", please attach a copy of the agreement.

6. Describe existing products, systems or information that are related to your invention. (external and internal). This should include any publications, patents and other information that describe items similar to your invention. Attach copies if available: This product is similar to systems that are available on the internet such as <http://www.dslreports.com/test>, these are products designed for DSL providers. ION has similar requirements to DSL providers.

7. What advantage(s) does the invention have as compared to the existing products?

This product is specific to the ION network. It is used to isolate the ION network from the Internet speed test services. This service also can be viewed by the ION service assurance technicians to look at the ION customers log to determine historical speeds the customer may have been experiencing. This product is designed to only run from ION customers and will not allow access from anyone that is not on the ION network.

8. What problem(s) does the invention solve? As mentioned above, this system provides data speed validation of ION customers that was unavailable prior to implementation of the Bandwidth Meter. The ION customers did have the ability to test to the internet through the ION network, but if a problem such as slow data speeds was encountered, Sprint had no way to isolate the ION network from the Internet.

9. Please provide a detailed description of the invention:
(Attach technical reports, design documents, DRS, TRS, tables, equations, etc. Drawings and sketches are particularly useful. For software inventions please provide a flow chart of all software routines.)

Sprint Law Department Docket No.: _____

Outside Patent Counsel Docket No.: _____



10. Inventor Information and Signature:

Full Name: Kevin Hansen
Home Address: 7985 Monticello Shawnee, KS. 66227
Home Phone: 913-441-1223
Wireless (PCS): _____
Social Security No.: 396-72-9755
Supervisor: Mark Wolfe
Citizen of what country? USA

Signature: _____

Work Phone: 913-534-5383
Fax No.: _____
Job Title/Group: Principal Engineer
E-mail address: kevin.h.hansen@mail.sprint.com

Full Name: Mark Wendling
Home Address: 11078 Century Lane
Home Phone: 913-491-4468
Wireless (PCS): _____
Social Security No.: 489-82-5498
Supervisor: Mark Wolfe
Citizen of what country? USA

Signature: _____

Work Phone: 913-534-3818
Fax No.: _____
Job Title/Group: Network Engineer
E-mail address: mark.e.wendling@mail.sprint.com

Full Name: Walt Weber
Home Address: 14325 S. Darnell, Olathe, KS 66062
Home Phone: 913-780-1890
Wireless (PCS): 913-706-6219
Social Security No.: 535 56 1028
Supervisor: Mark Wolfe
Citizen of what country? USA

Signature: _____

Work Phone: 913-534-7243
Fax No.: 913-534-5383
Job Title/Group: Principal Engineer
E-mail address: walt.weber@mail.sprint.com

Full Name: _____
Home Address: _____
Home Phone: _____
Wireless (PCS): _____
Social Security No.: _____
Supervisor: _____
Citizen of what country? _____

Signature: _____

Work Phone: _____
Fax No.: _____
Job Title/Group: _____
E-mail address: _____

Non-Sprint Potential Inventor(s) Only: what company do you work for and who at Sprint do you report to?

For additional inventors, please attach a separate page.

Sprint Law Department Docket No.: _____

Outside Patent Counsel Docket No.: _____



11. Reviewed and understood by:

Name: _____

Signature: _____

Date: _____

Return this form and any attachments to:

Timothy A. Nehls, Intellectual Property Administrator
8140 Ward Parkway, 5W
Kansas City, MO 64114
Phone: (913) 624-6885
Fax: (913) 624-6388
Mailstop: MOKCMP0506
E-mail: OpenMail

Instructions for Completing the Invention Disclosure Form

The Invention Disclosure Form should be completed and submitted promptly after conception of any idea that solves or appears to solve a problem. The questions included on the form are described below.

1. Title of the Invention

The title should be short but descriptive and enable immediate identification of the nature and substance of the invention. Specific titles are preferred over generic ones.

2. Summary of the Invention

In two or three sentences briefly describe the key points of the invention.

3. Earliest written description of the Invention

It may be important in future evaluations of the invention to know the earliest date for which written evidence of the invention exists. Therefore, it is important to identify the date and location of this written evidence. This may take the form of a laboratory notebook page, a report or any other written form. If possible, a copy of this earliest description of the invention should be attached to the Invention Disclosure Form.

4. Is the Invention ready for commercialization

This information will allow those reviewing the Invention Disclosure to assess how far along the invention is towards commercialization. If the invention is not ready for commercialization, its status should be described, e.g., pilot studies or bench work.

5. Has the Invention been disclosed or offered to anyone

It is extremely important that you provide information about disclosures of the invention. For example, these disclosures could be through development activities, discussions with potential suppliers, or in conferences presentations or publications. We need to know if the invention has been disclosed by Sprint or by others. Similarly we need to understand if the invention is being offered to others. This most often occurs through the sale of Sprint services where the invention is used to provide services. Finally, if any person who is not a Sprint employee has been or will be involved in the development, we need to understand their activity and the contractual relationship, if any, with Sprint.

6. Describe existing products, systems or information that are related to your invention

We cannot over emphasize the importance that you provide information about similar technologies. This might be information that you heard about at conferences, or read in articles or patents. If your patent is an improvement to existing systems, we need to understand the existing system. Upon filing for a patent you will be required to sign a legal declaration that you have disclosed all information known to be material to patentability. If you have doubts about whether you need to disclose information, you should error on the side of full disclosure. This information not only satisfies the legal duty of candor and good faith in dealing with the U.S. patent office, this information also assists in preparing a better patent application. A better patent application can be prepared because we can emphasize the differences between your invention and these other technologies.

7. Advantages of the Invention

Since most inventions are improvements over the prior art, it is important that the advantages of the invention be provided to those reviewing the disclosure. A listing of such advantages is often pivotal to the successful prosecution of a patent application.

8. Problems solved by the Invention

A listing of the problems that may be solved by the invention will be of particular interest to the reviewers in evaluating the Invention Disclosures. Also, the existence of problems in the prior art that are solved by the invention can be of great assistance in obtaining patent protection.

9. Detailed description of the Invention

In order to assist the patent attorney in conducting a patentability study and in preparing a patent application, a detailed description of the invention must be provided. This description should describe in detail how to practice the invention. The description should also discuss the various parameters of the invention (e.g., time, pressure, temperature, ingredients and their proportions, apparatus, feedstock, treatment steps) and identify the permissible ranges for each parameter. If available, detailed examples showing actual bench or pilot scale practice of the invention should be included. If available, copies of technical reports or memoranda that summarize the invention should be attached.

10. Inventors

Please list the name(s) of each inventor and have the inventor sign this form. An inventor is one who contributes to the conception and/or the reduction to practice the invention. Should the decision be made to prepare a patent application, the patent attorney will independently investigate the identity of the true inventor(s).

11. Witnesses to the Invention Disclosure

It is important to have each Invention Disclosure reviewed and understood by at least two individuals. Neither of these individuals should be an inventor.

Exhibit B



Bandwidth Measurement Tool Operational Ready Statement

INTRODUCTION

The purpose of this document is to convey operational readiness for the Bandwidth Measurement Tool (BMT) that will be deployed into ION and to present an overview of the architecture.

BUSINESS IMPROVEMENT OVERVIEW

PURPOSE

BMT is a tool to be used by Sprint ION customers and Sprint technicians to determine a customers bandwidth. Specifically, the BMT shall:

- ✓ Measure the upstream and downstream bandwidth on an ION and High Speed Data Connection between a customer's PC and a BMT Server in the ION Network.
- ✓ Present the measurement results to the customer.
- ✓ Log the measurements to a database/log file on the BMT server in the ION network.
- ✓ Allow searching of the measurement log by Sprint Operations technicians.
- ✓ Reduce truck rolls for Data trouble isolation.

CUSTOMERS

The organizations that will use the Bandwidth measurement Tool (BMT) application are depicted in Error! Reference source not found. below:

Organization Name
ION Service Deliver
ION Service Assurance
I & R
ION Solution Center

BENEFITS

The benefits from this project are:

- ✓ The ability to measure the bandwidth of a customers ION or High Speed Data connection.
- ✓ The ability to trouble-shoot a customers ION connection.

Contacts

In case you are experiencing problems with this product please contact the following:

Robert C. Coderre	ION Data Design and Engineering CNP&D robert.c.coderre@mail.sprint.com Phone: 703-689-5074
Kevin Hansen	Operations Planning kevin.h.hansen@mail.sprint.com Phone 913-534-5383
Mark Wendling	Operations Planning



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-XXXX

APPROVAL

The following approvals are required before the ORS is considered complete. Approval indicates that the individual acknowledges the deployment and production support requirements for BMT and commits to support the system.

Name	Title	Signature	Date
Rence Keffer	Manager, Network Planning and Design (NPD) ION Planning and Design		
John Dixon	Manager, Network Planning and Design (NPD) Computer Platform Planning		
Bob Teglia	Manager, Operations Support Service Center (OSSC) Network Operations/Maintenance		
Mark Wolfe	Mgr Ntwk Ops/Maint		
Becky Fresia	Manager ATD/SD/DPE		
Jeff Stone	Team Lead ATD/SD/DPE		
Jim Barnes	Team Lead ATD/SD/DPE		
Byron Clymer	Manager, System Development/SETS		
Cliff Harrison	Tech Spec II./SETS		
Tom Martin	Principal MTS/ATD		
Steve Baribeau	Manager TelGen		
Steve Kalen	Manager, Software Development/ATD		

TITLE: BMTORS-01v0.1

i

Sprint Restricted



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-XXXX

TABLE OF CONTENTS

1	INTRODUCTION	1
2	BUSINESS IMPROVEMENT OVERVIEW.....	1
2.1	PURPOSE.....	1
2.2	CUSTOMERS	1
2.3	BENEFITS.....	1
2.4	CONTACTS.....	1
2.5	SCHEDULE	2
3	SYSTEM ARCHITECTURE.....	2
3.1	HIGH LEVEL VIEW.....	2
3.2	APPLICATION INTERFACES	4
3.3	MANAGEMENT USER INTERFACES.....	4
3.4	NETWORK ARCHITECTURE.....	4
3.5	PHYSICAL ARCHITECTURE	4
3.6	HIGH-LEVEL DISASTER RECOVERY REQUIREMENTS.....	5
3.7	HIGH-LEVEL SECURITY REQUIREMENTS.....	6
4	ENVIRONMENT REQUIREMENTS.....	6
5	TECHNICAL SUPPORT AND OPERATIONS REQUIREMENTS	6
5.1	CONFIGURATION MANAGEMENT	7
5.2	ASSET MANAGEMENT	7
5.3	SOFTWARE DISTRIBUTION.....	7
5.3.1	Deployed Software.....	7
5.4	THIRD PARTY SOFTWARE REQUIREMENTS.....	8
5.4.1	BMT Server.....	8
5.5	HARDWARE REQUIRMENTS	8
5.5.1	The BMT Server.....	8
5.6	MONITORING	9
5.7	BACKUP AND RESTORE.....	9
5.8	PROBLEM MANAGEMENT	9
5.9	SERVICE LEVEL MANAGEMENT.....	9

TITLE: BMTORS-01v0.1

ii

Sprint Restricted



Phase 3.5B ION DPE/BMT ORS**NOSM-3.5B-xxxxx**

6 POTENTIAL FUTURE DEVELOPMENTS 9**ACRONYMS..... 1*****DOCUMENT REVISION HISTORY***

DATE	BRIEF DESCRIPTION OF CHANGES
	Version 0.1 draft



Phase 3.5B ION DPE/BMT ORS**NOSM-3.5B-XXXXX**

1 INTRODUCTION

The purpose of this document is to convey the high-level operational requirements for the Distributed Processing Environment (DPE) Bandwidth Measurement Tool that will be deployed into ION during phase 3.5B and to present an overview of the DPE/BMT architecture.

2 BUSINESS IMPROVEMENT OVERVIEW

2.1 PURPOSE

DPE/BMT is a tool to be used by Sprint ION customers and Sprint technicians to determine a customers bandwidth. Specifically, the DPE/BMT shall:

- ✓ Measure the upstream and downstream bandwidth on an ION connection between a customer's PC and a BMT Server in the ION Network.
- ✓ Present the measurement results to the customer.
- ✓ Log the measurements to a database/log file on the BMT server in the ION network.
- ✓ Allow searching of the measurement log by Sprint Operations technicians.

2.2 CUSTOMERS

The organizations that will use the Bandwidth measurement Tool (BMT) application are depicted in Table 1 below:

Organization Name	Contact Name
Operations Planning	Kevin Hansen
Technicians ????	????

Table 1 - DPE/BMT Customer Contact List

2.3 BENEFITS

The benefits from this project are:

- ✓ The ability to measure the bandwidth of and trouble-shoot a customers ION connection.

2.4 CONTACTS

A list of contacts for the DPE/BMT tool is presented below in Table 2.



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxxx

Name	Organization	Role/Responsibilities	Phone Number
Steve McNamara	NOSM	Project Director	972-405-4022
Steve Kalen	NOSM	Program Manager	913-534-6581
Becky Fresia	NOSM	Development Manager	913-534-6563
Jim Barnes	NOSM	Lead Developer	913-534-6026
Jeff Stone	NOSM	Lead Developer	913-534-6625
Iral Beech	NP&D	Data Network Design	913-534-5516
Allan Doensen	NOSM	ORS Author / DPE Analyst	913-534-6025

Table 2 - Contact List

2.5 SCHEDULE

Table 3 describes the high-level development and implementation schedule for DPE/BMT.

Activity	Target Start Date	Target Completion Date
Requirements Analysis		
Finalize Configuration		
Design		
Development		
Testing - Internal		
Testing - ISL		

Table 3 - DPE/BMT Schedule

3 SYSTEM ARCHITECTURE

This section describes the system architecture for the DPE/BMT. It describes how this tool integrates with other business applications and conveys a high-level technical design.

3.1 HIGH LEVEL VIEW

The DPE/BMT tool is a network test tool. Different parts of the BMT run in the ION network and on customer's PCs. The basic parts composing the BMT are shown in Figure 1 below. Each SSN (Sprint Service Node) contains one BMT Server. The BMT Server in a SSN services only the customer PCs using that specific SSN. There is no cross communication between BMT Servers in different SSNs. Measurements for a specific SSN are held only in that SSN's BMT Server, they are not backed up.



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxxx

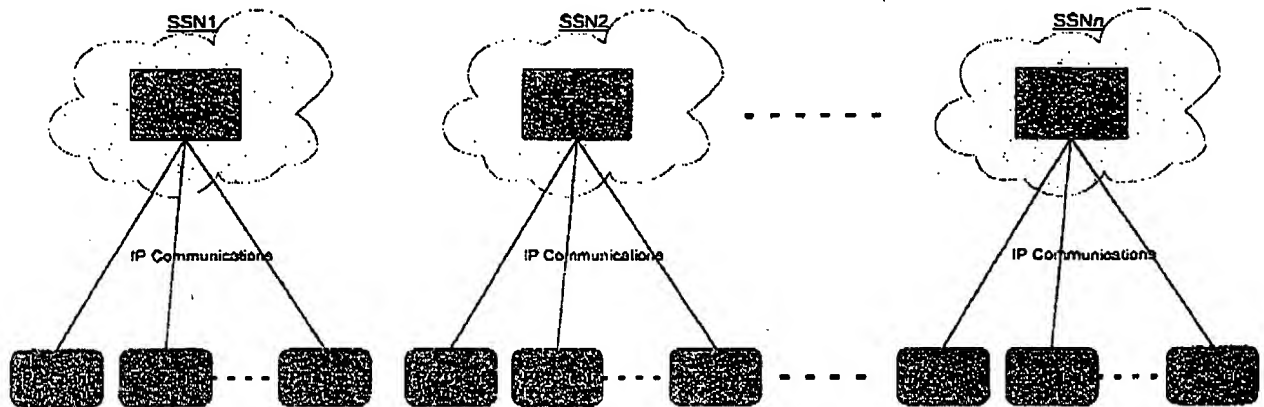


Figure 1. High Level view of the parts composing the Bandwidth Measurement Tool

Currently there are 13 SSNs, thus 13 BMT Servers shall be deployed. A customer PC can connect to the BMT Server using a web browser. The BMT Server communicates with the customer PC using HTTP/IP and UDP/IP. This is shown below in Figure 2 below.

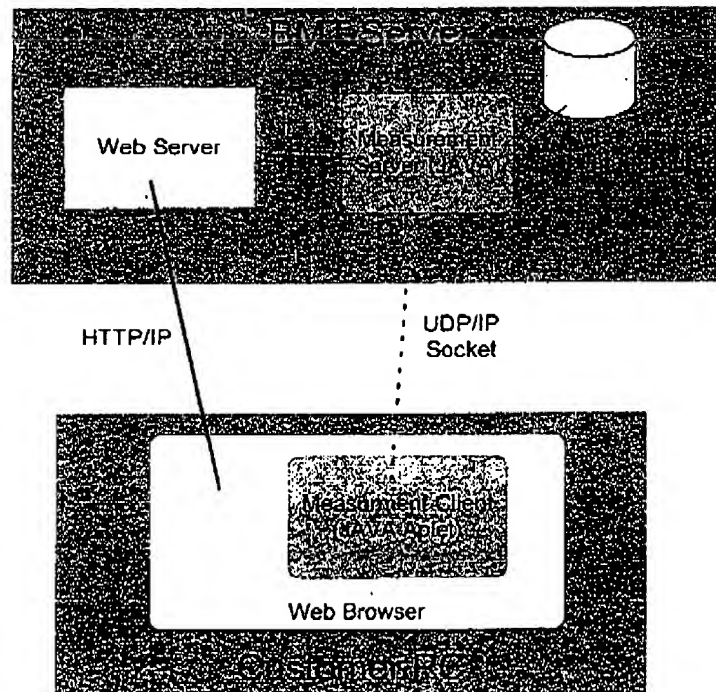


Figure 2. Major functional components in the BMT System.



Phase 3.5B ION DPE/BMT ORS**NOSM-3.5B-xxxxx**

3.2 APPLICATION INTERFACES

The BMT Server interacts with the DPE system for deployment, activation and monitoring. It does not interact with any other systems inside of ION.

3.3 MANAGEMENT USER INTERFACES

Management Users Interfaces are used to control and gain information from the BMT Server. The only management interface into the BMT Server is via a web page that can be accessed by Sprint staff.

3.4 NETWORK ARCHITECTURE

The network architecture describes how the BMT system exists in the distributed ION Network. The network architecture is shown in Figure 1.

3.5 PHYSICAL ARCHITECTURE

The physical architecture describes the physical elements in the BMT system and the connections between those elements. A diagram showing the Physical layout of the components within ION that affect BMT is shown in Figure 3 below.

The BMT Server is connected between is connected between the ION GSR and the Sprint Link GSR. This places the BMT Server at the closest possible position to the actual Internet gateway.

The BMT Server has a secure connection into the OSSnet via the ION GSR. This connection is used by DPE and remote login by Sprint staff.

The BMT Server has an un-trusted connection to the Internet via the Sprint Link GSR. This is used for web page access from customer PC's.



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-XXXX

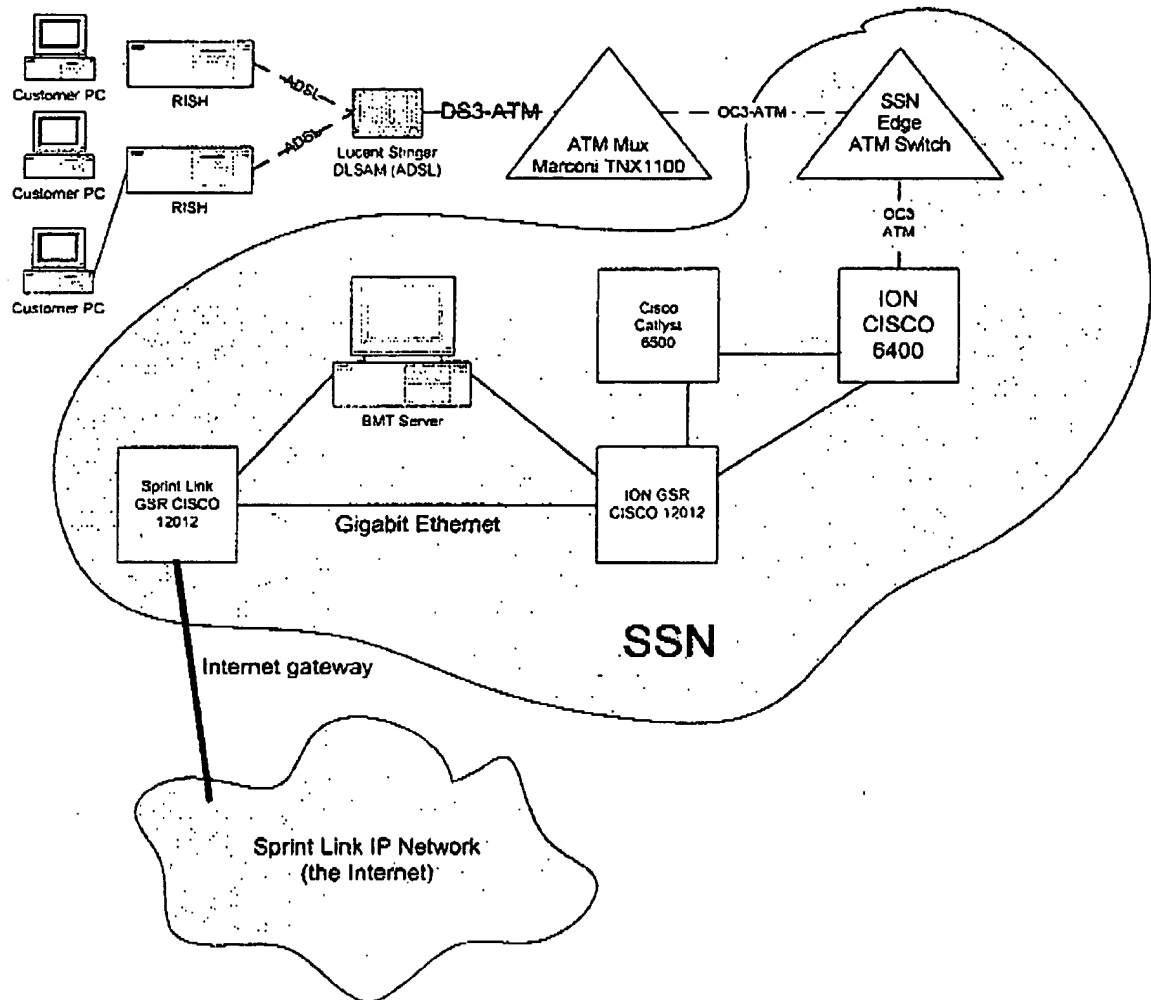


Figure 3. Physical Architecture of the hardware components for the BMT

3.6 HIGH-LEVEL DISASTER RECOVERY REQUIREMENTS

In general, the ION applications and equipment must be available on a 24x7 basis (24 hours a day, 7 days a week). However as the BMT is just a test tool these requirements do not apply. Thus the BMT will not utilize any HA or geo-failover capabilities. No data backup shall be provided for measurement data.



Phase 3.5B ION DPE/BMT ORS
NOSM-3.5B-xxxxx

3.7 HIGH-LEVEL SECURITY REQUIREMENTS

The BMT Server should be configured to only accept HTTP (port 80) and UDP (port 5881 and 5882)¹ connections. All other ports should be restricted.

4 ENVIRONMENT REQUIREMENTS

Table 4 summarizes the high-level environment needs of the system.

Environment	Description of Requirement	Date Needed	Status of Environment
Production	??	??	TBD
Product Test - ISL	Product Testing performed by ISL testers.		TBD
Development Test - Internal	Desktop development environment for DPE developers. Requires a customer PC & RISH.		TBD

Table 4 - Environment Requirements

5 TECHNICAL SUPPORT AND OPERATIONS REQUIREMENTS

This section presents the DPE/BMT application's Technical Support and Operations requirements. The Technical Support and Operations Processes are:

- Configuration Management
- Asset Management
- Software Distribution
- Third Party Software Requirements
- Hardware Requirements
- Security
- Monitoring
- Backup and Restore
- Problem Management
- Service Level Management

¹ The UDP Port numbers have been chosen at random, it is possible to choose other port numbers if these ones are inappropriate.



Phase 3.5B ION DPE/BMT ORS**NOSM-3.5B-xxxxx**

5.1 CONFIGURATION MANAGEMENT

The Configuration Management process installs and configures the hardware, software, and network components of the BMT system.

DPE is used for initial DPE/BMT installation and configuration. No routine maintenance is required after initial DPE/BMT installation except for normal product upgrades and occasional database/log file pruning.

5.2 ASSET MANAGEMENT

ATD Systems Integration is responsible for upgrading and maintaining hardware in the ATD development and testing environments.

ATD Configuration Management has the following responsibilities:

- Managing the acquisition and installation of all third-party software for the ATD development environments.
- Coordinating the third-party software availability and hardware configurations in the ATD, ISL and production environments with DPE/BMT requirements prior to DPE/BMT code moving to each environment.
- Hardware requirements in the production environment (and thus the ISL) are driven by the NP&D Network Planning Letter. ATD QA will ensure the ISL and production environments are in compliance with the Network Planning Letter prior to DPE/BMT code migration.
- Communicate the status of upgrades in the ATD, ISL and production environments to the DPE/BMT development team.

ATD Systems Integration is responsible for providing and maintaining development and testing hardware for ATD environments.

5.3 SOFTWARE DISTRIBUTION

The phase 3.5B DPE/BMT code will be migrated to production along with all other phase 3.5B ION code. All applications are installed during the same service outage, as coordinated by the OSSC and BSO and scheduled by the FDP process. The Distributed Processing Environment (DPE) application is used to install and configure DPE/BMT. The phase 3.5B code drop will include all DPE/BMT components. Subsequent software patches for 3.5B will only include affected components. The phase 3.5B DPE/BMT code is new for the BMT portion.

After DPE/BMT code is developed and unit tested in the ATD environments, it is sent to ISL for installation in the ISL environment. ISL is responsible for receipt, verification, installation, and verification of installation of ATD developed code in the ISL environments.

For phase 3.5B, both Systems Integration Testing (SIT) and Product Testing (PT) will be conducted in the ISL environments. ATD Systems Integration will perform Systems Integration Testing, and ISL will perform Product Testing.

When Product Testing is complete, ISL transmits the most recently tested versions of DPE/BMT code to the OSSC for implementation in the production network.

5.3.1 Deployed Software

The BMT requires the following software to be deployed/installed

Software



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxxx

HP-UX 11.0
Inprise/Borland VisiBroker 3.3
Oracle Client libraries 8.0.5
DPE Node Manager
DPE Logging Agent
BMT Software
ObjectSpace Foundations Toolkit 2.1
ObjectSpace Standards Toolkit 2.1
TIVOLI Version 3.2
JAVA 1.3
Web Server (???)
Perl (GNU Version 5.0 or better.)

5.4 THIRD PARTY SOFTWARE REQUIREMENTS**5.4.1 BMT Server**

Each BMT Server requires the following third party software to be purchased and installed.

Third Party Software	Reason
Inprise/Borland VisiBroker 3.3	CORBA ORB
Oracle Client libraries 8.0.5	To support DPE logging service
ObjectSpace Foundations Toolkit 2.1	DPE requirement
ObjectSpace Standards Toolkit 2.1	DPE requirement
HP-UX 11.0	Operating System
TIVOLI Version 3.2	To support DPE Logging service
JAVA 1.3	To support BMT Client Agent
Web Server (???)	To generate web pages for the customer and Sprint technician.
Perl (GNU Version 5.0 or better.)	To support the BMT.

5.5 HARDWARE REQUIREMENTS**5.5.1 The BMT Server**

The BMT Server shall contain all BMT Server software and supporting infrastructure. It shall also contain persistent storage space for all the measurement information gathered. These specifications for the BMT Servers are detailed in Table 5 below.

TITLE: BMTORS-01

8

Sprint Restricted



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxx

Description	National
Number of BMT Servers required	13 (1 per SSN, currently 13 SSNs)
Local Disk storage	8Gbyte (guess)
Local Memory (estimated minimum)	256Mbyte (guess)
Network Interface cards (NICs)	2 x 25Mb/s ATM interface or better.
Platform	Hewlett Packard

Table S. Hardware requirements for BMT Servers**5.6 MONITORING**

Monitoring of DPE/BMT software components will be performed by standard DPE methods

5.7 BACKUP AND RESTORE

No backup and restore will be performed.

5.8 PROBLEM MANAGEMENT

The Problem Management process documents, tracks, analyzes, resolves, and reports problems.

The initial point of contact for product support is the EIS Help Desk (1-800-877-HELP). The Help Desk will open an Expert Advisor ticket and page the DPE/BMT Primary Support pager. From this point on, DPE/BMT Production Support will work directly with the affected customer to resolve the problem.

If the Help Desk cannot contact DPE/BMT Production Support, the following escalation procedure should be used:

- First Escalation: Becky Fresia, DPE/BMT Manager (1-800-724-3329 PIN#385-4672)
- Second Escalation: Mark Gaskill, Project Management (1-800-724-3329 PIN # 382-3874)
- Third Escalation: Steve Kalen, Manager (913-269-5581)

5.9 SERVICE LEVEL MANAGEMENT

The Service Level Management process creates an agreement, the Service Level Agreement (SLA), between the customers and service providers of a system, captures information related to the performance against that agreement, and provides periodic reports depicting services and service levels being delivered. If required service levels are not being met, then Service Level Management initiates corrective action. The SLA must identify key services, how those services are to be measured, and what the required service levels are. All parties must agree to these elements if the SLA will have the desired effect.

As this tool does not affect service, no SLA is required.

6 POTENTIAL FUTURE DEVELOPMENTS

TBD



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxxx

Title: BMTORS-01

10

Sprint Restricted



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-XXXX

APPENDIX A**ACRONYMS**

24x7	24 hours a day, 7 days a week
AH	Service Authenticate Headers
AI	Application Integration
AKA	Also Known As
ATD	Advanced Technology Development
ATM	Asynchronous Transfer Mode
BMT	Bandwidth Measurement Tool
BSO	Broadband Switch Operations
CDSA	Common Data Security Architecture
CM	Connection Manager
CORBA	Common Object Request Broker Architecture
COTS	Commercial Off the Shelf
CP	Connection Performer
CPU	Central Processing Unit
CSO	Client Services Organization
DAP	Directory Access Protocol
DAM	Deployment Activation and Management
DBA	Database Administrator
DITA	Distributed Information Technology Architecture
DNS	Domain Name Server
DPE	Distributed Processing Environment
DRS	Detailed Requirements Statement
DSA	Digital Signature Algorithm
DSLAM	Digital Subscriber Line Access Multiplexer
E(1,2,3,4)	ATD Environment (1,2,3,4)
EIS	Enterprise Information Services
FDP	Flexible Delivery Process
FTP	File Transfer Protocol
GUI	Graphical User Interface

TITLE: BMTORS-01

A - 1

Sprint Restricted



Phase 3.5B ION DPE/BMT ORS

NOSM-3.5B-xxxxx

HA	High Availability
HEG	High End Group
HP	Hewlett Packard
HR	Human Resources
IAW	In Accordance With
ID	Identifier
IDL	Interface Definition Language
ION	Integrated On-Demand Network
IP	Internet Protocol
ISH	Integrated Services Hub
ISL	Integrates Services Lab
JRE	Java Runtime Environment
LAN	Local Area Network
LDAP	Lightweight Directory Application Protocol
LOID	Logical Object Identifier
LTD	Local Telephone Division
MAC	Media Access Control
MOP	Methods and Operating Procedures
N/A	Not Applicable
NCS	National Computing Site
NE	Network Element
NP&D	Network Planning & Design
OMG	Object Management Group
ORB	Object Request Broker
ORS	Operational Requirements Statement
OSSC	Operations Support Service Center
OSSNET	Operations System Support NETwork
QA	Quality Assurance
RISH	Residential Integrated Services Hub
RSMS	RISH Software Management Server
SA	Service Assurance
SES	Software Engineering Services

TITLE: BMTORS-01

A - 2

Sprint Restricted



Phase 3.5B ION DPF/BMT ORS**NOSM-3.5B-xxxxx**

SHLA	System High Level Approach
SME	Subject Matter Expert
SNMP	Simplified Network Management Protocol
SSN	Sprint Services Node
TCP	Transmission Control Protocol
TBD	To Be Determined
TSIM	Technology Services Integration Management
UDP	Unreliable Datagram Protocol
UI	User Interface
UML	Unified Modeling Language

TITLE: BMTORS-01

A - 3

Sprint Restricted

*Atty Docket: LDF 1660 (4000-04700)**Patent*

CONCLUSION

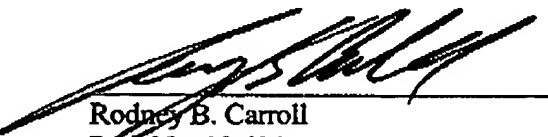
Consideration of the foregoing amendments and remarks, reconsideration of the application, and withdrawal of the rejections and objections is respectfully requested by Applicant. No new matter is introduced by way of the amendment. It is believed that each ground of rejection raised in the Office Action dated February 10, 2005 has been fully addressed. If any fee is due as a result of the filing of this paper, please appropriately charge such fee to Deposit Account No. 21-0765, Sprint. If a petition for extension of time is necessary in order for this paper to be deemed timely filed, please consider this a petition therefore.

If a telephone conference would facilitate the resolution of any issue or expedite the prosecution of the application, the Examiner is invited to telephone the undersigned at the telephone number given below.

Respectfully submitted,

Date: _____

5-5-05


Rodney B. Carroll
Reg. No. 39,624

ATTORNEY FOR APPLICANTS

CONLEY ROSE, P.C.
5700 Granite Parkway, Suite 330
Plano, Texas 75024
Tel: (972) 731-2288
Fax: (972) 731-2289